

CLAIMS

What is claimed is:

1. A recycling method comprising making an identification display showing that a product to be recycled satisfies a product standard from health and safety, an easily recyclable product standard, and a product standard based on an environmental load at a stage for producing the product and on an environmental load at a recycling stage, integrally appending said identification display to the product to be recycled, and managing the recyclable product circulated in a market with said identification display.

2. The recycling method according to Claim 1, wherein the easily recyclable property of said product is judged by evaluating the recyclable property of each of parts constituting said product, recording the evaluated recyclable property to form a database, and referring to said database from the part constitution of said product.

3. The recycling method according to Claim 2, wherein the easily recyclable property of said product is judged by setting management standards related to the recycling of the parts constituting said product, and referring to said database from a part constitution satisfying said management standards.

4. The recycling method according to Claim 2, wherein a content of a recycling-inhibiting substance for inhibiting the recycling for each of said parts is specified and then inputted into said database.

5. The recycling method according to Claim 2, wherein said database is freely connected through a telecommunication network.

6. The recycling method according to Claim 2, wherein said product is a polyester product, and has a composition satisfying the following expression (1).

$$(\alpha_1 + \beta_1 + \gamma_1 + \cdots \omega_1) / X \times 100 \geq 40 \quad \cdots (1)$$

(wherein, X is the weight of the product, α_1 , β_1 , γ_1 , \cdots , ω_1 are each a polyester content in each part).

7. The recycling method according to Claim 2, wherein said product is a polyester product, and further wherein the composition of each part constituting said product is not less than 40 percent by weight of a polyalkylene terephthalate composition.

8. The recycling method according to Claim 1, wherein the recyclable product distributed in the market is managed by giving management information related to the recycling, such as the raw materials, production date, production place, production lot No., weight, quality data,
5 recyclable raw material employment rate, and recommended recycling method of the commodity product to said identification display, visually and/or electronically reading said management information, and, if necessary, adding new management information.

9. The recycling method according to Claim 1, wherein a
10 prescribed amount of refund is paid back to a consumer, when the management information contained in said identification display appended to the product used by the consumer is read and the product is consequently found to fit to prescribed standards.

10. The recycling method according to Claim 1, wherein members
15 including at least product producers, product sellers, members for collecting the used products, members for transporting the used products, and intermediate raw material producers, as constituent members, who jointly operate the system for recycling the products are connected to each other through a telecommunication network to share the management information
20 of said identification displays appended to the recycled products.

11. The recycling method according to Claim 10, wherein a server capable of reading and writing data for managing the products to be recycled is disposed on said telecommunication network to give in accessible, readable, and writable states necessary information related to a product specified by
25 said display to a member accessed to a home page provided by said server, or, if necessary, to a non-member, in response to an authority given to each member or non-member.

12. The recycling method according to Claim 11, wherein whether a brought used product can be recycled or not is evaluated by at least one
30 evaluation means including a visual inspection using the identification display, a non-destructive inspection and/or a chemical analysis inspection.

13. The recycling method according to Claim 12, wherein the receiving evaluation of the used product brought in by a non-member is approved by an information network manager integrally managing the
35 operation of the recycling system.

14. The recycling method according to Claim 1, characterized in that the product to be recycled simultaneously satisfies the following requirements (a) to (c).

(a). The product to be recycled is a polyester product.

5 (b). The collected product is evaluated by said collecting member to collect the passed product.

(c). A recommended recycling method is selected on the result obtained by the evaluation, and a new identification display is appended.

10 (d). The transportation destination of the collected product is confirmed with the telecommunication network, and the product is transported to the intermediate raw material producer.

And,

(e). The intermediate raw material products are produced and recycled.

15 15. The recycling method according to Claim 1, wherein the product to be recycled is a polyester product, and further wherein the composition of each part constituting said product is a composition containing a polyalkylene terephthalate in an amount of not less than 40 percent by weight.

20 16. The recycling method according to Claim 1, wherein the product collected for the recycling is supplied to a material recycle and/or a chemical recycle.

25 17. A recycling system comprising making an identification display showing that a product to be recycled satisfies a product standard from health and safety, an easily recyclable product standard, and a product standard based on an environmental load at a stage for producing the product and on an environmental load at a recycling stage, integrally appending said identification display to the product to be recycled, and managing the recyclable product circulated in a market with said
30 identification display, characterized by having at least the above-mentioned identification display integrally appended to said product, a data base for recording management information such as the recycling-inhibiting substance contents of part constituting said product, a server computer for managing the information necessary for the recycling in a state capable of
35 being read and written in said database, an input means for inputting

retrieval information such as the kind, weight and constitution of each part constituting said product, and a recyclability-judging means for judging the total easy recyclability of said product on the basis of the input information from said input means.

5 18. The recycling system according to Claim 17, wherein members including at least product producers, product sellers, members for collecting the used products, members for transporting the collected commodities, and intermediate raw material producers, who jointly operate the system for recycling products, can freely access from the information communication
10 terminals to said server computer through an telecommunication network.

 19. The recycling system according to Claim 17, having at least one evaluation means including a visual inspection using the identification display appended to the product, a non-destructive inspection and/or a
15 chemical analysis inspection.

20